



# Ornamental Horticulture Program Research Project Sheet

<http://ir4.rutgers.edu/Ornamental/ornamentalProjectInformationSheets.cfm>

**Project Name:** Pre Emergent Herbicide Crop Safety – Dimethenamid-p

<b>New</b>	<b>Ongoing</b>	X	<b>Completed</b>	<b>Duration if ongoing or completed:</b>	2007 - 2015
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**Project Description:**

The Pre-Emergent Herbicide Crop Safety Project began in 2004 and has continued through 2015. While specific crops and herbicides have changed, the intent of this research has been to screen over-the-top applications of pre-emergent herbicides as plants are breaking dormancy, or beginning new growth, and then 4 to 6 weeks later once foliage is more mature. This research project sheet covers two formulations containing dimethenamid-p: Freehand G (pendimethalin + dimethenamid-p) and Tower EC (dimethenamid-p).

**Research Project Abstract (if available):**

**Abstract from 2014 Dimethenamid-p Crop Safety Summary**

From 2007 to 2013, IR-4 completed 401 trials on Tower EC (dimethenamid-p). The data contained in this report was generated to register uses of dimethenamid-p on and around ornamental horticulture plants with over-the-top applications. The dimethenamid-p rates in the testing program were 0.97, 1.94 and 3.88 pounds active ingredient per acre (lb ai per A) as the 1X, 2X and 4X rates. Tower EC had been applied to 126 plant genera or species. Of these, 58 plant species exhibited no or minimal transient injury after application at all three rates. Nine crops exhibited no phytotoxicity at 0.97 and 1.94 lb ai per acre but did have some injury at 3.88 lb ai per acre. Six crops – *Cladrastis*, *Echinacea*, *Epilobium canum*, *Muhlenbergia dubia*, *Teucrium chamaedrys* and *Viburnum opulus* – exhibited significant phytotoxicity at even the lowest rate.

**Abstract from 2015 Pendimethalin + Dimethenamid-p Crop Safety Summary**

From 2007 to 2013, IR-4 completed 598 trials on Freehand G (BAS 649 G; dimethenamid-p + pendimethalin). The data contained in this report was generated to register uses of dimethenamid-p + pendimethalin on and around ornamental horticulture plants with broadcast applications, including over the top of established plants. The Freehand rates in this testing program were 2.64, 4.3 and 10.6 pounds active ingredient per acre (lb ai per A) as the 1X, 2X and 2X rates. Freehand G had been applied to 166 plant genera or species. Of these genera and species, 71 exhibited no or minimal transient injury after application at all three rates. Thirty three (33) crops exhibited little or no phytotoxicity at 2.64 lb ai per acre, but did have some injury at 4.3 and/or 10.6 lb ai per acre, or showed injury after the second application. Of the forty nine (49) crops that still need additional information, there are twelve (12) genera or species in which three or more trials do not show significant injury, but one or more additional trials shows some sort of notable injury, necessitating additional research. Additional trials are also indicated to establish species or cultivar sensitivities.

**Target Species (Phytotoxicity, or common and Latin name of arthropod, pathogen, weed):**

Crop Safety

**Target Crops (list tested crops if ongoing or completed project)**

See "IR-4 Crop Safety to Date" below

**Target Product(s) (list tested products or numbered compounds if ongoing or completed project)**

Freehand G

Tower EC

**Product Registration and Research Status**

	Registration Status
Labeled & Commercialized Wide range of ornamental horticulture crops listed	Freehand G * Tower EC *
Labeled & Commercialized Opportunity to add additional ornamental horticulture crops	

Labeled But NOT Commercialized	
Not yet registered or labeled	
No longer available for development	
* IR-4 Data contributed to registration decision – either adding pest to label or not pursuing further research	
1 At least one crop species screened fully	
2 Product not available for production ornamentals	

<b>Other:</b>

Project Pros	Project Cons
1 Additional research could yield data favorable for further label expansion	1 Fairly extensive label
2	

**IR-4 Crop Safety Trials to Date**

Average rating on a scale of 1 – 5 with 1 = 0 to about no injury and 5 = severe injury and mortality; minimum to maximum rating; number of trials. A rating of 3 or higher is considered commercially unacceptable (*red text*). A rating of 1 or 2 is considered commercially acceptable and those with more than 3 trials are complete (*green text*). ‘Labeled’ indicates that IR-4 generated data in at least one trial and that this crop is listed on the label. For crop/product combinations that are blank, IR-4 has not screened this combination.

Plant Group	Crop	Freehand G (Dimethenamid-p + pendimethalin)	Tower EC (Dimethenamid-p)
Broadleaf Evergreen Tree/Shrub	Boxwood, Japanese ( <i>Buxus microphylla</i> )		4.0 (4 - 4) n1
	Boxwood ( <i>Buxus</i> sp.)	1.0 (1 - 1) n3	Labeled
	Bottlebrush ( <i>Callistemon</i> sp.)	1.5 (1 - 2) n4	Labeled
	Camellia ( <i>Camellia</i> sp.)	1.0 (1 - 1) n4	Labeled
	Cotoneaster ( <i>Cotoneaster dammeri</i> )		Labeled
	Wintercreeper ( <i>Euonymus fortunei</i> )		Labeled
	Spindle Tree ( <i>Euonymus japonicus</i> )		Labeled
	Jasmine, Cape, Common Gardenia ( <i>Gardenia</i> sp.)		Labeled
	Toyon, Christmas Berry ( <i>Heteromeles arbutifolia</i> )	2.0 (2 - 2) n1	3.0 (3 - 3) n1
	Holly ( <i>Ilex</i> sp.)	1.0 (1 - 1) n6	Labeled
	Holly, Blue ( <i>Ilex x meserveae</i> )		3.0 (3 - 3) n1
	Fetterbush, Drooping Leucothoe ( <i>Leucothoe</i> sp.)	1.0 (1 - 1) n1	Labeled
	Loropetalum ( <i>Loropetalum</i> sp.)	Labeled	Labeled
	Oregon Grape ( <i>Mahonia aquifolium</i> )	1.0 (1 - 1) n4	
	Heavenly Bamboo ( <i>Nandina domestica</i> )		Labeled
	Holly Olive;False ( <i>Osmanthus heterophyllus</i> )	1.0 (1 - 1) n2	1.5 (1 - 2) n2
	Photinia ( <i>Photinia</i> sp.)	2.8 (1 - 4) n4	Labeled
	Andromeda ( <i>Pieris</i> sp.)	1.0 (1 - 1) n3	Labeled
	Indian Hawthorn ( <i>Raphiolepis indica</i> )	1.0 (1 - 1) n3	Labeled
	Azalea ( <i>Rhododendron</i> sp.)	1.2 (1 - 2) n5	Labeled
Ternstroemia ( <i>Ternstroemia</i> sp.)	1.0 (1 - 1) n3	1.3 (1 - 2) n3	
Broadleaf Evergreen/Deciduous Tree/Shrub	Abelia ( <i>Abelia</i> sp.)		Labeled
	Barberry ( <i>Berberis</i> sp.)	1.8 (1 - 3) n6	Labeled
	Cotoneaster ( <i>Cotoneaster</i> sp.)	2.3 (1 - 3) n3	Labeled
	Privet ( <i>Ligustrum</i> sp.)	2.5 (1 - 4) n4	Labeled
Bulbs & Corms	Magnolia ( <i>Magnolia</i> sp.)	Labeled	Labeled
	Elephant's-Ear, Angel-Wings ( <i>Caladium</i> sp.)	1.0 (1 - 1) n1	Labeled

Plant Group	Crop	Freehand G (Dimethenamid-p + pendimethalin)	Tower EC (Dimethenamid-p)
	Canna (Canna sp.)	2.0 (1 - 4) n4	
	Corn Flag, Sword Lily (Gladiolus sp.)	Labeled	
	Daylily (Hemerocallis sp.)	1.4 (1 - 3) n5	Labeled
	Flag (Iris sp.)	Labeled	
Cactus & Succulents	Agave (Agave sp.)	1.7 (1 - 2) n3	2.3 (2 - 3) n3
	Barbados Aloe (Aloe sp.)	1.3 (1 - 2) n3	2.7 (2 - 4) n3
	Stonecrop (Crassula sp.)		3.0 (3 - 3) n1
	Echeveria sp. (Echeveria sp.)		4.0 (4 - 4) n1
	Echinocactus grusonii (Echinocactus grusonii)		1.3 (1 - 2) n3
	Mammillaria sp. (Mammillaria sp.)		1.0 (1 - 1) n1
	Stonecrop (Sedum sp.)	2.0 (1 - 4) n5	Labeled
Deciduous Tree/Shrub/Vine	Box elder (Acer negundo L. ssp. Negundo)	Labeled	Labeled
	Maple, Japanese (Acer palmatum)	1.0 (1 - 1) n5	Labeled
	Maple, Red (Acer rubrum)	1.6 (1 - 2) n5	Labeled
	Maple (Acer sp.)	1.0 (1 - 1) n4	1.8 (1 - 4) n4
	Horse Chestnut (Aesculus sp.)	1.0 (1 - 1) n2	
	Serviceberry (Amelanchier sp.)	2.0 (1 - 4) n4	
	Japanese Barberry (Berberis thunbergii)		5.0 (5 - 5) n1
	Birch, River (Betula nigra)		Labeled
	Butterfly Bush (Buddleia davidii)	1.0 (1 - 1) n4	Labeled
	Sweetshrub (Calycanthus sp.)	1.0 (1 - 1) n2	
	Caryopteris (Caryopteris x clandonensis )		1.0 (1 - 1) n3
	Ceanothus, maritime (Ceanothus maritimus)	1.7 (1 - 3) n3	
	Ceanothus sp. (Ceanothus sp.)	1.7 (1 - 3) n3	Labeled
	Ceanothus (Ceanothus x pallida)	1.0 (1 - 1) n3	Labeled
	Red Bud, Eastern (Cercis canadensis)	1.0 (1 - 1) n4	
	Yellowwood (Cladrastis sp.)	1.6 (1 - 4) n5	Labeled
	Clematis (Clematis sp.)	1.3 (1 - 3) n7	1.3 (1 - 2) n4
	Summersweet (Clethra alnifolia)	2.8 (1 - 4) n4	2.7 (1 - 4) n3
	Dogwood, Silky (Cornus amomum)		Labeled
	Dogwood, Flowering (Cornus florida)	1.3 (1 - 2) n4	Labeled
	Dogwood, Kousa (Cornus kousa)	1.3 (1 - 2) n6	
	Dogwood, Red Osier (Cornus sericea)		Labeled
	Hawthorn (Crataegus sp.)	1.0 (1 - 1) n3	Labeled
	Winged Burning Bush (Euonymus alatus)	1.0 (1 - 1) n1	Labeled
	Golden Bells (Forsythia sp.)	1.3 (1 - 2) n4	Labeled
	Witch Alder (Fothergilla gardenii)	1.0 (1 - 1) n4	
	Ash, Green (Fraxinus pennsylvanica)		Labeled
	Ash (Fraxinus sp.)	Labeled	Labeled
	Honey Locust (Gleditsia sp.)	1.0 (1 - 1) n4	Labeled
	Hydrangea (Hydrangea sp.)	Labeled	Labeled
	Candytuft (Iberis sp.)	3.3 (2 - 4) n3	3.0 (1 - 4) n3
	Virginia Sweetspire (Itea virginica)	1.7 (1 - 3) n3	
	Walnut, Black (Non-Bearing) (Juglans nigra)		Labeled
	Japanese Kerria, Japanese Rose (Kerria japonica)	1.3 (1 - 2) n3	2.0 (2 - 2) n1
	Crape Myrtle (Lagerstroemia indica)	1.3 (1 - 2) n4	Labeled
	Larch (Larix sp.)	1.0 (1 - 1) n1	
	Lavender (Lavandula sp.)	1.3 (1 - 3) n7	Labeled
	Apple & Crabapple (Non-Bearing) (Malus sp.)	1.0 (1 - 1) n3	Labeled

Plant Group	Crop	Freehand G (Dimethenamid-p + pendimethalin)	Tower EC (Dimethenamid-p)
	Sourwood, Sorrel Tree ( <i>Oxydendrum arboreum</i> )	1.0 (1 - 1) n1	
	Mock Orange ( <i>Philadelphus</i> sp.)	2.5 (1 - 4) n2	
	Oak, Sawtooth ( <i>Quercus acutissima</i> )		2.3 (2 - 3) n3
	Nuttall oak ( <i>Quercus nuttallii</i> )		2.0 (2 - 2) n1
	Oak, Northern Red ( <i>Quercus rubra</i> )		Labeled
	Oak, Shumard Red ( <i>Quercus shumardii</i> )	1.7 (1 - 2) n3	
	Oak ( <i>Quercus</i> sp.)	1.0 (1 - 1) n3	Labeled
	Oak, Southern Live ( <i>Quercus virginiana</i> )	2.0 (2 - 2) n1	
	Rose ( <i>Rosa</i> sp.)	1.0 (1 - 1) n6	Labeled
	Elder, Elderberry ( <i>Sambucus</i> sp.)	Labeled	
	Bridal-Wreath ( <i>Spiraea</i> sp.)	Labeled	Labeled
	Camellia, Mountain ( <i>Stewartia</i> sp.)	1.0 (1 - 1) n3	1.0 (1 - 1) n1
	Lilac ( <i>Syringa</i> sp.)	1.3 (1 - 2) n4	Labeled
	Dwarf germander ( <i>Teucrium chamaedrys</i> )	3.3 (2 - 4) n3	2.7 (1 - 5) n3
	Elm ( <i>Ulmus</i> sp.)	1.5 (1 - 2) n2	
	Viburnum ( <i>Viburnum nudum</i> )		Labeled
	Viburnum ( <i>Viburnum opulus</i> )		Labeled
	Viburnum ( <i>Viburnum plicatum</i> )		Labeled
	Arrowwood ( <i>Viburnum</i> sp.)	Labeled	Labeled
	Viburnum ( <i>Viburnum tinus</i> )		1.5 (1 - 3) n4
Wisteria ( <i>Wisteria</i> sp.)		Labeled	
Japanese Zelkova ( <i>Zelkova serrata</i> )	Labeled	2.0 (2 - 2) n1	
Fern	Fern, Lady ( <i>Athyrium nipponicum</i> )	4.0 (4 - 4) n1	
	Fern, Autumn ( <i>Dryopteris erythrosora</i> )	Labeled	2.0 (1 - 3) n2
	Fern, Shaggy Shield ( <i>Dryopteris</i> sp.)	4.0 (4 - 4) n1	2.5 (2 - 3) n2
	Fern, Royal ( <i>Osmunda regalis</i> )	4.0 (4 - 4) n2	3.0 (3 - 3) n1
Hardy Ground Cover Foliage	Windflower, Lily-Of-The-Field ( <i>Anemone</i> sp.)	1.5 (1 - 2) n4	
	Delosperma sp. ( <i>Delosperma</i> sp.)		2.2 (1 - 3) n5
	Shrub Verbena ( <i>Lantana</i> sp.)	Labeled	Labeled
	Lilyturf, Creeping ( <i>Liriope</i> sp.)	1.0 (1 - 1) n4	
	Catnip ( <i>Nepeta cataria</i> )	2.0 (1 - 3) n4	2.7 (1 - 4) n3
	Catmint ( <i>Nepeta x faasseni</i> )	1.8 (1 - 4) n5	2.8 (1 - 4) n4
	Japanese Spurge ( <i>Pachysandra terminalis</i> )	1.0 (1 - 1) n3	
	Common periwinkle ( <i>Vinca minor</i> )	Labeled	
Herbaceous Flowering Plant	Lily-Of-The-Nile ( <i>Agapanthus</i> sp.)	1.8 (1 - 4) n4	Labeled
	Golden Trumpet ( <i>Allamanda cathartica</i> )	1.0 (1 - 1) n1	
	Thrift, Sea Pink ( <i>Armeria maritima</i> )	Labeled	
	California fuschia ( <i>Epilobium canum</i> )	4.0 (4 - 4) n1	4.0 (4 - 4) n1
	Blanket Flower ( <i>Gaillardia</i> sp.)	1.0 (1 - 1) n1	
	Treasure Flower ( <i>Gazania</i> sp.)	3.4 (2 - 4) n5	
	Mallow, Rose Mallow ( <i>Hibiscus</i> sp.)	1.2 (1 - 2) n6	2.0 (1 - 3) n6
	Sweet Alyssum ( <i>Lobularia maritima</i> )	1.3 (1 - 2) n3	
	Stock ( <i>Matthiola incana</i> )	3.3 (3 - 4) n3	
	Cinquefoil ( <i>Potentilla</i> sp.)	Labeled	Labeled
	Ruscus ( <i>Ruscus hypophyllum</i> )	1.0 (1 - 1) n1	
	Pasture Sage ( <i>Salvia nemorosa</i> )		3.0 (2 - 4) n5
	Sage, Scarlet ( <i>Salvia splendens</i> )	1.0 (1 - 1) n1	
	Sage, Ramona ( <i>Salvia sylvestris</i> )	Labeled	Labeled
Beach Naupaka ( <i>Scaevola</i> sp.)	2.8 (1 - 4) n4	2.0 (1 - 4) n3	

Plant Group	Crop	Freehand G (Dimethenamid-p + pendimethalin)	Tower EC (Dimethenamid-p)
	Ironweed, New York ( <i>Vernonia noveboracensis</i> )	<b>2.0 (2 - 2) n1</b>	
	Speedwell, Brooklime ( <i>Veronica</i> sp.)	Labeled	
Herbaceous Flowering Plant - Annual	Chocolate Flower ( <i>Berlandiera lyrata</i> )		<b>3.0 (3 - 3) n1</b>
	Sunflower ( <i>Helianthus</i> sp.)	<b>2.3 (1 - 4) n3</b>	
	New Guinea Impatiens ( <i>Impatiens hawkeri</i> )	Labeled	
	Moon Flower ( <i>Ipomoea</i> sp.)	<b>1.8 (1 - 3) n4</b>	
	Petunia ( <i>Petunia</i> sp.)	<b>1.0 (1 - 1) n4</b>	
	Purslane ( <i>Portulaca</i> sp.)	<b>2.5 (2 - 3) n2</b>	
	Marigold ( <i>Tagetes</i> sp.)	<b>3.2 (1 - 4) n5</b>	
	Yarrow ( <i>Achillea millefolium</i> )	<b>2.3 (1 - 3) n3</b>	
Herbaceous Flowering Plant - Perennial	Hyssop species ( <i>Agastache</i> sp.)	<b>1.0 (1 - 1) n4</b>	
	Bluestar ( <i>Amsonia</i> sp.)	Labeled	
	Columbine ( <i>Aquilegia</i> sp.)	Labeled	Labeled
	Butterfly Flower ( <i>Asclepias</i> sp.)	Labeled	Labeled
	False Spirea ( <i>Astilbe</i> sp.)	<b>2.4 (1 - 4) n5</b>	
	Bellflower ( <i>Campanula</i> sp.)	<b>3.3 (3 - 4) n3</b>	
	Rose Periwinkle ( <i>Catharanthus roseus</i> )	<b>3.3 (2 - 4) n4</b>	<b>4.0 (4 - 4) n1</b>
	Turtlehead, Snakehead ( <i>Chelone</i> sp.)	Labeled	
	Chrysanthemum, Garden ( <i>Chrysanthemum/Dendranthema</i> sp.)		Labeled
	Hardy Mum ( <i>Chrysanthemum/Dendranthema</i> x <i>morifolium</i> )	<b>1.3 (1 - 2) n4</b>	Labeled
	Golden Star ( <i>Chrysogonum</i> sp.)	<b>3.0 (3 - 3) n1</b>	
	Tickseed ( <i>Coreopsis</i> sp.)	Labeled	
	Pinks ( <i>Dianthus</i> sp.)	<b>1.3 (1 - 2) n3</b>	
	Purple Coneflower ( <i>Echinacea</i> sp.)	Labeled	<b>3.5 (3 - 4) n2</b>
	Thoroughwort ( <i>Eupatorium</i> sp.)	<b>1.5 (1 - 3) n4</b>	
	Gaura ( <i>Gaura lindheimeri</i> )	Labeled	<b>1.7 (1 - 3) n3</b>
	Coral Bells, Alumroot ( <i>Heuchera sanguinea</i> )		<b>2.3 (1 - 3) n4</b>
	Alumroot ( <i>Heuchera</i> sp.)	<b>2.0 (1 - 4) n3</b>	
	Hosta ( <i>Hosta</i> sp.)	<b>1.4 (1 - 2) n5</b>	<b>2.0 (2 - 2) n2</b>
	Shasta Daisy ( <i>Leucanthemum maximum</i> )	<b>1.0 (1 - 1) n3</b>	<b>2.0 (2 - 2) n3</b>
	Blazing-Star, Gayfeather ( <i>Liatris</i> sp.)	<b>3.0 (2 - 4) n4</b>	
	Lobelia ( <i>Lobelia</i> sp.)	<b>2.8 (1 - 4) n5</b>	
	Evening Primrose, Sundrops ( <i>Oenothera</i> sp.)	<b>2.0 (1 - 3) n4</b>	
	Peony ( <i>Paeonia</i> sp.)	<b>1.0 (1 - 1) n2</b>	Labeled
	Beard-Tongue ( <i>Penstemon</i> sp.)		Labeled
	Phlox, Perennial ( <i>Phlox paniculata</i> )	Labeled	
	Carolina Phlox ( <i>Phlox</i> sp.)	<b>2.5 (1 - 4) n4</b>	
	Creeping Phlox, Moss Pink ( <i>Phlox subulata</i> )	Labeled	
	Coneflower, Orange ( <i>Rudbeckia fulgida speciosa</i> )	Labeled	
	Coneflower ( <i>Rudbeckia</i> sp.)		<b>4.0 (3 - 5) n2</b>
	Pincushion Flower ( <i>Scabiosa</i> sp.)	Labeled	
	Goldenrod ( <i>Solidago</i> sp.)	Labeled	
	Goldenrod, Autumn ( <i>Solidago sphacelata</i> )	Labeled	
	Vervain ( <i>Verbena</i> sp.)	<b>1.3 (1 - 2) n4</b>	
Speedwell, Spiked ( <i>Veronica spicata</i> )	Labeled		
Narrowleaf Evergreen Tree/Shrub	Fir, Fraser ( <i>Abies fraseri</i> )	<b>1.3 (1 - 2) n4</b>	Labeled
	Cedar, Atlas ( <i>Cedrus atlantica</i> )	<b>1.0 (1 - 1) n1</b>	

Plant Group	Crop	Freehand G (Dimethenamid-p + pendimethalin)	Tower EC (Dimethenamid-p)
	False Cypress ( <i>Chamaecyparis</i> sp.)	1.2 (1 - 2) n6	
	Japanese Cedar ( <i>Cryptomeria japonica</i> )	Labeled	Labeled
	Cypress, Leyland ( <i>Cupressocyparis leylandii</i> )	1.0 (1 - 1) n3	
	Cypress ( <i>Cupressus</i> sp.)		1.0 (1 - 1) n2
	Juniper ( <i>Juniperus</i> sp.)	1.0 (1 - 1) n6	Labeled
	Spruce, Norway ( <i>Picea abies</i> )		Labeled
	Spruce, Colorado ( <i>Picea pungens</i> )		Labeled
	Spruce ( <i>Picea</i> sp.)	1.0 (1 - 1) n3	
	Pine ( <i>Pinus</i> sp.)	Labeled	
	Pine, Loblolly ( <i>Pinus taeda</i> )	Labeled	
	Fir, Douglas ( <i>Pseudotsuga menziesii</i> )	1.0 (1 - 1) n3	
	Evergreen currant ( <i>Ribes viburnifolium</i> )	Labeled	Labeled
	Yew ( <i>Taxus</i> sp.)	1.3 (1 - 2) n4	Labeled
	Cedar, Western Red ( <i>Thuja plicata</i> )	1.0 (1 - 1) n3	1.5 (1 - 2) n4
	Arborvitae ( <i>Thuja</i> sp.)	Labeled	Labeled
	Hemlock, Western ( <i>Tsuga heterophylla</i> )	Labeled	1.0 (1 - 1) n2
	Hemlock ( <i>Tsuga</i> sp.)	1.0 (1 - 1) n2	2.3 (1 - 3) n3
Ornamental Grass	Feather Reed Grass ( <i>Calamagrostis acutiflora</i> )	Labeled	
	Grassland Sedge ( <i>Carex divulsa</i> )	1.7 (1 - 2) n3	Labeled
	Northern Sea Oats, Wild Oats ( <i>Chasmanthium latifolium</i> )		2.3 (1 - 4) n4
	Pampas Grass ( <i>Cortaderia</i> sp.)	2.8 (1 - 4) n4	
	Plume Grass; Ravenna ( <i>Erianthus</i> sp.)	2.0 (1 - 3) n2	
	Blue Fescue ( <i>Festuca glauca</i> )	Labeled	
	Silver Grass ( <i>Miscanthus</i> sp.)	1.7 (1 - 2) n3	
	Muhly, hairyawn ( <i>Muhlenbergia capillaris</i> )	2.0 (1 - 4) n3	1.0 (1 - 1) n1
	Mexican deergrass ( <i>Muhlenbergia dubia</i> )	MFG Hold	3.3 (2 - 5) n3
	Mondo Grass, Lilyturf, Ker-Gawl ( <i>Ophiopogon</i> sp.)	1.3 (1 - 2) n3	Labeled
Palm	Palmetto Palm ( <i>Sabal minor</i> )	1.0 (1 - 1) n3	1.0 (1 - 1) n1
	Palm, Windmill ( <i>Trachycarpus fortunei</i> )	1.0 (1 - 1) n1	
Tropical Foliage Plant	Jasmine, Star;Confederate ( <i>Trachelospermum jasminoides</i> )		1.0 (1 - 1) n1